

CLAIMS

1. A system for providing a content comprising:

communication means, including a subscriber telephone network, for

5 establishing a communication line between a mobile telephone and another telephone when the mobile telephone is dialed up,

a content providing apparatus for providing the content represented by a digital signal to an information terminal, and

a relay apparatus which is connected to a multi-function mobile telephone,

10 having the function as the information terminal, through the subscriber telephone network, and converts a telephone number notified of by the multi-function mobile telephone into an ID code unique to the multi-function mobile telephone, wherein communication between the multi-function mobile telephone and the content providing apparatus is performed through the relay apparatus.

15 2. A system according to claim 1, further comprising an information terminal connected to the multi-function mobile telephone and having a display device larger in size than the multi-function mobile telephone,

wherein the communication means comprises the Internet.

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3. A system according to claim 2, wherein the relay apparatus is a gateway arranged to the subscriber telephone network to connect the subscriber telephone network to the Internet.

25 4. A system according to claim 2, wherein the relay apparatus is an DNS server owned by an Internet service provider, and is connected to the multi-function mobile telephone through the subscriber telephone network.

5. A system according to claim 2, wherein the content providing apparatus is an Internet server which provides a program and/or data for video gaming.

5 6. A system according to claim 5, wherein the information terminal connected to the multi-function mobile telephone is a video gaming machine which is operated while monitoring an image presented on the display device thereof.

10 7. A system according to claim 1, wherein the relay apparatus comprises a unit which notifies the content providing apparatus of the ID code of the multi-function mobile telephone.

15 8. A system according to claim 7, further comprising an information terminal which is connected to the subscriber telephone network using the multi-function mobile telephone that is used as an interface, wherein the content providing apparatus includes a unit which provides the content to the information terminal, and a unit which identifies the information terminal to which the content is provided, based on the ID code notified of by the relay apparatus.

20 9. A system for providing a content, comprising: a telephone communication network; a computer network; a server, connected to the computer network, for providing the content; a terminal, connected to the telephone communication network, and having a telephone number unique thereto; and a relay apparatus for connecting the telephone communication network to the computer network; wherein

25 the relay apparatus comprises:
a unit for relaying communications between the terminal and the server,
a unit for connecting the terminal to the computer network in response

to a dial-up connection request from the terminal,

a unit for detecting the telephone number of the terminal,

a unit for converting the telephone number into a unique code, and

a unit for notifying the server of the unique code; and

5 the server comprises:

a unit for providing the content to the terminal, and

a unit for identifying the terminal to which the content is provided,

based on the unique code notified of by the relay apparatus.

10 10. A system according to claim 9, wherein the computer network is the Internet.

11. A system according to claim 9, wherein the terminal comprises a mobile telephone connected to the telephone communication network.

15 12. A system according to claim 9, wherein the unit for detecting the telephone number of the terminal detects the telephone number of the terminal when the terminal places the dial-up connection request.

20 13. A system according to claim 9, wherein the server further comprises a unit which performs a fee billing process to the terminal to which the content is provided, based on the unique code notified of by the relay apparatus.

25 14. A relay apparatus for use in a content providing system including communication means, including a subscriber telephone network, for establishing a communication line between a mobile telephone and another telephone when the mobile telephone is dialed up, and a content providing apparatus for providing the content represented by a digital signal to an information terminal through the communication means, the relay apparatus

comprising:

a unit for connecting to a multi-function mobile telephone, having a function of serving as the information terminal, through the subscriber telephone network,

5 a unit for converting a telephone number notified of by the multi-function mobile telephone into an ID code unique to the multi-function mobile telephone, and a unit for relaying communications between the multi-function mobile telephone and the content providing apparatus.

15. A relay apparatus for use in a content providing system including a telephone communication network, a computer network, a server, connected to the computer network, for providing a content, and a terminal, connected to the telephone communication network, and having a telephone number unique thereto, the relay apparatus connecting the telephone communication network to the computer network, and comprising:

15 a unit for relaying communications between the terminal and the server,

a unit for connecting the terminal to the computer network in response to a dial-up connection request from the terminal,

a unit for detecting the telephone number of the terminal,

a unit for converting the telephone number into a unique code, and

20 a unit for notifying the server of the unique code.

16. A method for providing a content using a system including a multi-function mobile telephone having a function of serving as an information terminal, communication means, including a subscriber telephone network, for establishing a communication line between the multi-function mobile telephone and another telephone when the multi-function mobile telephone is dialed up, a content providing apparatus for providing the content represented by a digital signal to the multi-function mobile

telephone through the communication means, and a relay apparatus which is connected to the multi-function mobile telephone through the subscriber telephone network, and relays communications between the multi-function mobile telephone and the content providing apparatus, the method performed by the relay apparatus comprising the steps

5 of:

acquiring a telephone number notified of by the multi-function mobile telephone, and

converting the telephone number into an ID code unique to the multi-function mobile telephone.

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17. A method for providing a content using a system including a telephone communication network, a computer network, a server, connected to the computer network, for providing the content, a terminal, connected to the telephone communication network, and having a telephone number unique thereto, and a relay apparatus for connecting the telephone communication network to the computer network, the method comprising the steps of:

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in a relaying operation performed by the relay apparatus between the terminal and the server, connecting the terminal to the computer network in response to a dial-up connection request from the terminal, detecting the telephone number of the terminal, converting the telephone number into a unique code, and notifying the server of the unique code, and

in the supplying of the content by the server to the terminal, identifying the terminal to which the content is provided, based on the unique code notified of by the relay apparatus.

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18. A method for providing a content using a system including a telephone communication network, a computer network, a server, connected to the computer

network, for providing the content, a terminal, connected to the telephone communication network, and having a telephone number unique thereto, and a relay apparatus for connecting the telephone communication network to the computer network, the method of the relay apparatus comprising the steps of:

- 5 relaying communications between the terminal and the server,
 connecting the terminal to the computer network in response to a dial-up connection request from the terminal,
 detecting the telephone number of the terminal,
 converting the telephone number into a unique code, and
10 notifying the server of the unique code.

19. A storage medium storing a software program carried out by a relay apparatus when a system provides a content, the system including a telephone communication network, a computer network, a server, connected to the computer network, for providing the content, a terminal, connected to the telephone communication network, and having a telephone number unique thereto, and the relay apparatus for connecting the telephone communication network to the computer network, the software program comprising program codes for:

- 15 relaying communications between the terminal and the server,
 connecting the terminal to the computer network in response to a dial-up connection request from the terminal,
 detecting the telephone number of the terminal,
 converting the telephone number into a unique code, and
20 notifying the server of the unique code.

- 25 20. A software program carried out by a relay apparatus when a system provides a content, the system including a telephone communication network, a computer network,

a server, connected to the computer network, for providing the content, a terminal, connected to the telephone communication network, and having a telephone number unique thereto, and the relay apparatus for connecting the telephone communication network to the computer network, the software program comprising program codes for:

- 5 relaying communications between the terminal and the server,
- connecting the terminal to the computer network in response to a dial-up connection request from the terminal,
- detecting the telephone number of the terminal,
- converting the telephone number into a unique code, and
- 10 notifying the server of the unique code.

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